

**IN THE DRAWINGS**

Please replace original Figures 6 and 7 with the replacement sheet enclosed herewith.

### **REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendment and remarks. The present amendment is being made to facilitate prosecution of the application.

#### **I. STATUS OF THE CLAIMS AND FORMAL MATTERS**

The title was objected to because it was not descriptive. A new title has been submitted that clearly indicates the invention to which the claims are directed to. Applicants respectfully request that the Examiner withdraw his objection to the title.

The disclosure was objected to because of several informalities, which have been corrected by the present amendment. Applicants respectfully request that the Examiner withdraw his objections to the disclosure.

The drawings were objected to because Figures 6 and 7 had handwritten reference numerals which had some legibility concerns. Applicants are submitting corrected drawing sheets in compliance with 37 C.F.R. 1.121(d). Applicants respectfully request that the objections to the drawings be withdrawn.

Claims 1-11 and 16-17 are pending in this application. Claims 12-15 are hereby canceled and claim 17 is hereby added. Claims 1, 8-9, and 16 are hereby amended. Claims 1, 16, and 17 are independent. No new matter has been introduced.

It is submitted that these claims, as originally presented, were in full compliance with the requirements 35 U.S.C. §112. Changes to the claims are not made for the purpose of

patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification.

## II. REJECTIONS UNDER 35 U.S.C. §101

Claims 1-16 were rejected under 35 U.S.C. §101 as allegedly directed to non-statutory subject matter.

Claim 1 now recites, *inter alia*:

A video processing method

...

(ii) generating original foreground image **signals** by manipulation of a contiguous group of graphics primitives;

(iii) applying anti-aliasing filtering to edges of each primitive of said group of primitives to generate primitive-processed image **signals**

(iv) **processing said primitive-processed image signals** to superpose said primitive-processed image over said image background; and

(v) **processing said original foreground image signals** to superpose said original foreground image over said primitive-processed image.  
(Emphasis added)

The present amendment emphasizes the practical utility of the present invention by the addition of the word “**signals**.” Applicants respectfully submit that claim 1 has practical utility, namely, claim 1 provides **anti-aliasing in a video effects system**. In particular, as stated in the Office Action, the question of whether a claim encompasses statutory subject matter should focus on “the essential characteristics of the subject matter, in particular, its practical utility” (see page 4). The Office Action concedes that “this application is directed to a useful, concrete, and tangible result” (see page 3, paragraph 5).

Therefore, Applicants respectfully submit that independent claim 1 is patentable.

Independent claim 16 is directed to a video processing apparatus. Some of the elements of Claim 16 are written in means plus function language. The “means” are described in the specification and are interpreted in accordance with 35 U.S.C. §112. Claim 16 clearly is directed to subject matter of the type contemplated by 35 U.S.C. §101.

Claims 12-15, which were directed to “programs per se,” have been canceled. New claim 17, incorporating the subject matter of claims 12-15, has been added. Independent claim 17 is directed to “a program storage medium including a processing program, stored thereon,” and is in full compliance with Sec. 2106 of the M.P.E.P.

### **III. REJECTIONS UNDER 35 U.S.C. §112**

Claims 1-16 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 9-11 were further rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. The claims allegedly contain subject matter which was not described in the specification in such a way as to enable one of ordinary skill in the art to make and/or use the invention.

Claim 1, step (ii) is allegedly “misdescriptive because the specification does not describe manipulating the continuous group of graphics primitives.” Applicants respectfully direct the Examiner to page 14, lines 23-25, which state: “The foreground image is built up from a contiguous group of tiled graphics primitives and each graphics primitive has a texture mapped onto it.”

Claim 1, step (iii) is allegedly “incomplete with regards to the type of filtering being performed.” Applicants respectfully submit that step (iii) specifically refers to “applying anti-aliasing filtering.” (See page 15, lines 16-18 for support.)

Claim 1, step (iv) is allegedly incomplete because “the use of the term superposing is misdescriptive of the type of combining being performed.” Applicants respectfully direct the Examiner to page 15, lines 16-18 and Figure 9A for support of this step.

With regard to both steps (iii) and (iv) discussed above, page 15 of the specification clearly refers to the primitive-processed image as being the “foreground” in Figure 9A. Thus, it has been superposed over the “background.” The difference between the “foreground” and the “background” is determined by the z-value, as described earlier in the specification. Applicants respectfully direct the Examiner to page 10, lines 26-31 of the instant specification for a description of how alpha-blending and superposition can both occur as the same operation.

Claim 1, step (v) is allegedly “incomplete because the specification does not describe superposing original image over the primitive processed image.” Applicants respectfully direct the Examiner to page 15, lines 33-34, which state: “FIG. 9B schematically illustrates an image created by superposing a non anti-aliased version of the image [original] over the primitive processed foreground image of FIG. 9A.”

Claim 2, step (viii) is allegedly “misdescriptive of the replacing since page 16, lines 29-35 discusses replacing more than just the edge regions with the softened version of the combined image.” Applicants respectfully direct the Examiner to page 16, lines 27-35, which state:

FIG. 9D schematically illustrates how a final anti-aliased image is produced by replacing portions of image version 2 of FIG. 9B with corresponding portions of the softened image of FIG. 9C. **The softened image version is used to replace a region of one graphics primitive (8 pixels wide in this embodiment) just inside the peripheral boundary of the non-anti-aliased region** in FIG. 9B. A peripheral region of image version 2 is replaced by the corresponding portion of the softened image. **Any image region for which the alpha value is less than one is replaced at this stage by the corresponding region of the softened image.** This will include regions associated with the pagecurl effect shown in FIG. 9D. (Emphasis added)

Claim 8 was rejected because “a high degree of transparency is claimed while the specification at page 15, lines 29-32 describes semi-transparency.” Applicants respectfully direct the Examiner once again to page 16, lines 27-35, as quoted above. The alpha-value in the range [0,1] determines the degree of transparency, with a value closer to zero representing more transparency and a value closer to one representing opacity. A high degree of transparency means the alpha-value is less than one.

Claim 9 was rejected because “said setting step” and “said display plane” allegedly lack antecedent basis. The antecedent basis for “said setting step” is in claim 8, from which claim 9 depends (see claim 8, line 4). Further, claim 9 has been amended to provide antecedent basis for “said display plane.”

Claims 9 to 11 were rejected for allegedly failing to comply with the enablement requirement by containing subject matter which was not described with sufficient detail in the specification. The Examiner argues that the description on pages 14 and 15 of the present specification requires undue experimentation. However, Applicants respectfully submit that some experimentation is always necessary to bring any invention into practice. The Examiner argues that no information is provided on the type of transformation to be applied. However, the specification details the types of transformations, namely anti-aliasing, low-pass filtering, and

alpha-blending. The Examiner further argues that no information is provided on the degree of transparency. However, the specification implies that a non-zero transparency in an entire range of alpha-values can be used as claimed.

Therefore, Applicants respectfully submit that claims 1-11 fully comply with 35 U.S.C. §112. The rejection of these claims based upon 35 U.S.C. §112 should be withdrawn.

Claim 16 is directed to an apparatus that performs the method of, for example, claim 1. Claim 17 is directed to a storage medium. Claims 16 and 17 define patentable subject matter under 35 U.S.C. §101 and are consistent with the tenets of 35 U.S.C. §112.

#### **IV. DEPENDENT CLAIMS**

The other claims are each dependent from claim 1 discussed above and are therefore believed patentable for at least the above-identified reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.


**CONCLUSION**

Applicants respectfully request prompt examination on the merits and early passage to issue of the present application.

Please charge any fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,

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